

REMARKS

Claims 1-20 are pending in the application. Claims 1 and 2 were rejected and claims 3-7 were objected to. Claims 8-20 are allowed. In view of the following remarks, reconsideration of the application is respectfully requested.

Claim Rejections – 35 U.S.C. § 102

Claims 1 and 2 were rejected under 35 U.S.C. § 102(e) as being anticipated by Langley Sr. et al., U.S. Patent No. 6,751,699, ("Langley"). Applicant respectfully traverses this rejection as Langley fails to disclose all elements of claims 1 and 2.

Claim 1 recites "a single electrical backplane rated to distribute at least 5000 Watts of power from a power supply to modules connected to the backplane." It is regrettably not understood which element of Langley is applied as the *single* electrical backplane, as the rejection refers to both the MiniHub 100 and its connection 114 to a host computer backplane. As will be shown below, neither Langley's MiniHub nor his host computer backplane meets the limitations of claim 1.

With respect to Langley's MiniHub 100, the circuit board of Minihub 100 fails to meet the limitations of claim 1. First, MiniHub 100 comes nowhere close to distributing 5000 Watts of power to the seven SFF transceivers 102 and one GBIC 104 disclosed by Langley. Exhibit A contains a public document containing data on a commercially-available Gigabit Ethernet SFF fiber optic transceiver. The transmitter portion of the Exhibit A transceiver has 260 mW maximum power dissipation, and the receiver has 470 mW maximum power dissipation (see chart on page 3). Assuming eight of these transceivers, as specified by Langley, in a worst case his fiber optic transceivers, in the aggregate, require 5.8 Watts from the MiniHub circuit board, *three orders of magnitude* less than the power rating claimed by Applicant. Furthermore, 16 pairs of differential pair Gigabit signaling connections between the transceivers and the crosspoint switch, as disclosed by Langley, supports data signaling at only 16 Gbps, not a rate of at least 500 Gigabits/second as claimed in claim 1. Accordingly, the technology necessary to build a small circuit board with 5.8 Watts of power distribution and 16 Gbps signaling throughput fails to teach or enable a backplane with a minimum rating of 5000 W and 500 Gbps as claimed and enabled by Applicant.

With respect to the host computer backplane disclosed by Langley, that backplane comes no closer than Langley's MiniHub to anticipating the instant claims. Figure 5, relied

on in the rejection, shows that all differential signals terminate on the MiniHub card itself, with *none* passing across the host computer backplane. Indeed, the industry standard PCI or VME host bus 144 disclosed by Langley does not use differential signaling, and neither bus standard supports the signaling throughput or power distribution rating claimed by Applicant. Further, Langley merely manages the MiniHub from the host computer, and thus requires an even smaller bandwidth than the 8 Gbps switched between the fiber optic ports on the MiniHub (see Langley Figures 6-10 for managed switching topologies, none of which route port traffic to the host computer backplane).

Claim 2 recites that the backplane is also rated to simultaneously distribute at least 5000 Watts of power from a second power supply to modules connected to the backplane. The rejection asserts that Langley's 5 V to 3.3 V voltage converter 110 meets this limitation. As in the case above, Langley's modules do not require in the aggregate even 10 Watts of power, and the 5 V power to the voltage converter comes through the tiny PCI signal connector. Thus one of ordinary skill would not understand converter 110 as necessarily requiring a 5000 Watt-rated voltage converter. Furthermore, although 3.3 V is a second power supply voltage, the voltage converter is not a second power supply as used in claim 2—if Langley's 5 V power supply to the voltage converter fails, no 3.3 V power can be supplied either. It is not clear from Langley that both voltages are even supplied to the modules—the SFF modules of Exhibit A appear to operate on a single 3.3 V supply.

Langley fails to disclose all limitations of claims 1 and 2, at least for the reasons identified above. Accordingly, Applicant respectfully requests that the rejection of claims 1 and 2 be withdrawn.

Allowable Subject Matter

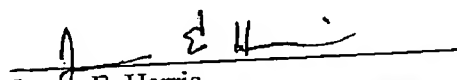
Claims 3-7 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In view of the arguments above for the allowability of the claims from which claims 3-7 depend, Applicant has elected to not rewrite claims 3-7 at the present time.

Conclusion

For the foregoing reasons, reconsideration and allowance of claims 1-20 of the application as amended is solicited. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

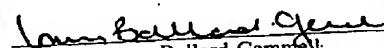
Respectfully submitted,

MARGER JOHNSON & McCOLLOM, P.C.


James E. Harris
Reg. No. 40,013

MARGER JOHNSON & McCOLLOM, P.C.
1030 SW Morrison Street
Portland, OR 97205
503-222-3613
Customer No. 20575

I hereby certify that this correspondence
is being transmitted to the U.S. Patent and
Trademark Office via facsimile number
1-703-872-9306, on October 12, 2004.


Lauren Ballard-Gemmel